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09/892,312	06/26/2001	Siew Fei Lee	70005452-1	2336

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EXAMINER	
NGUYEN, KEVIN M	
ART UNIT	PAPER NUMBER
2674	

DATE MAILED: 06/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/892,312

**Applicant(s)**

LEE, SIEW FEI

**Examiner**

Kevin M. Nguyen

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 March 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4, 7, 8 and 10-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 7, 8, 10-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### DETAILED ACTION

1. This office action is made in response to applicant's amendment filed on 03/14/2005. Claims 5, 6, 9 are cancelled, claims 1, 7, 10, 12, 20 are amended, claim 23 is new, and claims 1-4, 7, 8, 10-23 are currently pending in the application. An action follows below:

#### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4, 7, 8, 10-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Thorne, III et al (US 5,670,955) [hereinafter Thorne] in view of Date et al (US 5,498,843) [hereinafter Date].

4. As to claim 1 (revised), Thorne teaches a jog dial comprising:

Fig. 6 discloses a switch 4 of x-axis, and a switch 12 of x-axis corresponding to a first and a second x-axis input,

a switch 0 of y-axis, and a switch 8 of y-axis corresponding to a first and a second y-axis input,

the user's directional input through the round pad 8. For example, assume that the switch 0 in FIG. 6 represents the most counter-clockwise (in the direction opposite to the rotating hands of a clock) switch and switch 4 the most clockwise (in the same

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direction as the rotating hands of a clock) switch (col. 6, lines 58-62) by a pivot member 52 (direction about a z-axis, fig. 4, col. 4, line 45).

Thorne teaches all of the claimed limitations of claim 1, except for "elastically deformable diaphragm...recited in claim 1."

Date teaches related jog dial comprising the bulges 5a through 5d of the resilient member 5 (elastically deformable diaphragm) are arranged at positions above the corresponding electrical contacts 6a through 6d on the wiring board 6 (see fig. 19, col. 15, lines 60-62).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Thorne's carbon contacts 20-50 and switch 74 (fig. 4), including the bulges 5a through 5d of the resilient member 5 are arranged at positions above the corresponding electrical contacts 6a through 6d on the wiring board 6, in view of the teaching in Date's reference because this would provide tilting the shape of the contact member is elastically transformed as taught by Date (col. 3, lines 4-5).

As to claim 2, Thorne teaches at least one diagonal input at switch 2 (fig. 6).

As to claim 3, Thorne teaches Fig. 6 disclosing the diagonal switch 2 (fig. 6) having a corresponding diagonal input position defined between one of switch "0" y-axis and the second switch "4" x-axis input (see fig. 6).

As to claim 4, Thorne teaches the at least one diagonal switch "2" input (fig. 6). Date teaches related jog dial comprising the bulges 5a through 5d of the resilient member 5 are arranged at positions above the corresponding electrical contacts 6a through 6d on the wiring board 6 (see fig. 19, col. 15, lines 60-62). Therefore, the

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modified teaching of Thorne's reference in view of the modified teaching of Date's reference provide the "substantial evidence" and established a prima facie case to produce and result the claimed limitations of claims 4.

As to claims 7, 19 (revised), Thorne teaches an annular member 70 (an engagement means) secures the pad 8 to the board member 72 and provides biasing (a biasing means) of the pad 8 away from the board 72 so that when no pressure is applied to the pad, every contact is facing its respective switch in an unactuated position (col. 4, lines 57-61).

As to claim 8, Thorne teaches an annular member 70 secures the pad 8 to the board member 72 and provides biasing (a biasing means) of the pad 8 away from the board 72 so that when no pressure is applied to the pad, every contact is facing its respective switch in an unactuated position (col. 4, lines 57-61).

As to claim 10, Thorne teaches the user's directional input through the round pad 8. For example, assume that the switch 0 in FIG. 6 represents the most counter-clockwise switch and switch 4 the most clockwise switch in an arc of closed switches 0 through 4 corresponding to a first and a second directional input (col. 6, lines 58-62) and a direction angle of 45° (col. 7, line 21).

As to claim 11, Thorne teaches a base 72 (fig. 4), the round pad 8 is captivity held in a housing 4 and is retained within the housing by a retaining ring 6. There is, however, sufficient space between the retaining ring 6 and the round pad 8 for maneuvering the pad (col. 3, lines 56-59).

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As to claim 12, Thorne teaches an annular member 70 secures the pad 8 to the board member 72 and provides biasing (a biasing means) located between the jog pad 10 and an upper surface of the base 72 (see fig. 4).

As to claim 13, Thorne teaches fig. 2 expressly showing the jog pad is marked at (10) to indicate the positioning of the input positions (also see figs. 1 and 4).

As to claim 14, Thorne teaches fig. 4 expressly showing the jog pad has an upper surface which patterned to enhance grip (10) to the jog pad by the user's finger (see fig. 4).

As to claim 15, Thorne teaches fig. 4 disposing the pivot 52 (see fig. 4).

As to claims 16, 17, 18, Thorne teaches an annular member 70 secures the pad 8 to the board member 72 and provides biasing (a biasing means) of the pad 8 away from the board 72 so that when no pressure is applied to the pad, every contact is facing its respective switch in an unactuated position (col. 4, lines 57-61).

Accordingly, Thorne teaches all the subject matter claimed with the exception of the particular shape of engaging member within a groove, hollow or aperture. Moreover, the mere fact that changes in Size does not preclude its consisting of various element in change Size of old elements was not to solve an existent problem such inquiry is whether bringing them adjustable Size was obvious. Absent a showing of criticality it would have been within the level of skill in the art and obvious to one having ordinary skill to engineering design the Size of a well-known element is normally not directed toward patentable subject matter as desired as was judicially recognized. See In re Rose, 105 USPQ 237 (CCPA 1955) and In re Reven, 156 USPQ 679 (CCPA 1968).

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5. As to claim 20 (revised), Thorne teaches a jog dial comprising:

Fig. 6 discloses a switch 4 of x-axis, and a switch 12 of x-axis corresponding to a first and a second x-axis input,

a switch 0 of y-axis, and a switch 8 of y-axis corresponding to a first and a second y-axis input,

the user's directional input through the round pad 8. For example, assume that the switch 0 in FIG. 6 represents the most counter-clockwise (in the direction opposite to the rotating hands of a clock) switch and switch 4 the most clockwise (in the same direction as the rotating hands of a clock) switch (col. 6, lines 58-62) by a pivot member 52 (direction about a z-axis, fig. 4, col. 4, line 45).

Thorne teaches all of the claimed limitations of claim 20, except for "elastically deformable diaphragm... recited in claim 20."

Date teaches related jog dial comprising the bulges 5a through 5d of the resilient member 5 (elastically deformable diaphragm) are arranged at positions above the corresponding electrical contacts 6a through 6d on the wiring board 6 (see fig. 19, col. 15, lines 60-62).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Thorne's carbon contacts 20-50 and switch 74 (fig. 4), including the bulges 5a through 5d of the resilient member 5 are arranged at positions above the corresponding electrical contacts 6a through 6d on the wiring board 6, in view of the teaching in Date's reference because this would provide tilting the shape of the contact member is elastically transformed as taught by Date (col. 3, lines 4-5).

As to claims 21 and 22, Thorne teaches a processing unit 100 (fig. 5, col. 4, line 62 through col. 5, line 50).

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thorne and Date as applied to claim 1 above, and further in view of Palisek (US 4,256,931).

As to claim 6, Thorne and Date teach all of the claimed limitations of claim 1, except for, the central input comprises an elastically deformable diaphragm...recited in lines 1-6 of claim 6.

Palisek teaches a jog dial comprising the center input switch 24 (fig. 2), the dome of contact switch 12 (fig. 2).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide Palisek's dome of contact switch 12 for Date's center key 110 (fig. 1), in view of the teaching of Palisek's reference because this would provide the centrally disposed force-applying area permits selective, independent actuation of each of the switches in rapid succession as taught by Palisek (col. 2, lines 30-32).

7. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thorne and Date, and further in view of Palisek (US 4,256,931).

8. As to claim 23 (new), Thorne teaches a jog dial comprising:

Fig. 6 discloses a switch 4 of x-axis, and a switch 12 of x-axis corresponding to a first and a second x-axis input,

a switch 0 of y-axis, and a switch 8 of y-axis corresponding to a first and a second y-axis input,



the user's directional input through the round pad 8. For example, assume that the switch 0 in FIG. 6 represents the most counter-clockwise (in the direction opposite to the rotating hands of a clock) switch and switch 4 the most clockwise (in the same direction as the rotating hands of a clock) switch (col. 6, lines 58-62) by a pivot member 52 (direction about a z-axis, fig. 4, col. 4, line 45).

Thorne teaches all of the claimed limitations of claim 23, except for "elastically deformable diaphragm...recited in claim 23."

Date teaches related jog dial comprising the bulges 5a through 5d of the resilient member 5 (elastically deformable diaphragm) are arranged at positions above the corresponding electrical contacts 6a through 6d on the wiring board 6 (see fig. 19, col. 15, lines 60-62).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Thorne's carbon contacts 20-50 and switch 74 (fig. 4), including the bulges 5a through 5d of the resilient member 5 are arranged at positions above the corresponding electrical contacts 6a through 6d on the wiring board 6, in view of the teaching in Date's reference because this would provide tilting the shape of the contact member is elastically transformed as taught by Date (col. 3, lines 4-5).

The combination of Thorne with Date teaches all of the claimed limitations of claim 23, except for the central input comprises an elastically deformable diaphragm...recited in claim 23.

Palisek teaches a jog dial comprising the center input switch 24 (fig. 2), the dome of contact switch 12 (fig. 2).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide Palisek's dome of contact switch 12 for Date's center key 110 (fig. 1), in view of the teaching of Palisek's reference because this would provide the centrally disposed force-applying area permits selective, independent actuation of each of the switches in rapid succession as taught by Palisek (col. 2, lines 30-32).

### ***Response to Arguments***

9. Applicant's arguments filed 04/19/2004 have been fully considered but they are not persuasive. Applicant argues features in the independent claims 1, 7, 10, 12, 20 that are newly recited. Thus, new grounds of rejection have been used. See above rejections. For these reasons, the rejections based on Thorne, Date, and Palisek have been maintained.

### ***Conclusion***

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin M. Nguyen whose telephone number is 571-272-7697. The examiner can normally be reached on MON-THU from 8:00-6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick N. Edouard can be reached on 571-272-7603. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the Patent Application Information Retrieval system, see <http://portal.uspto.gov/external/portal/pair>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kevin M. Nguyen  
Patent Examiner  
Art Unit 2674

KMN  
May 31, 2005

  
**XIAO WU**  
**PRIMARY EXAMINER**